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ABSTRACT

This handbook is designed to provide educators, counselors, employment advisors, and similar personnel in the State of Washington with a handy reference to the apprenticeable trades. Concise thumbnail sketches for use in discussions and vocational counseling of individuals detail opportunities, entrance requirements, helpful school subjects, and wages earned for apprenticeship in 38 crafts in the building, machine and metal, and service and miscellaneous trades. Other service and miscellaneous trades offering apprenticeship in limited numbers are listed without descriptions, as are apprenticeships in printing and allied trades. General information on apprenticeship in Washington State is offered, with addresses of agencies in the State to contact for more detailed information. (AJ)

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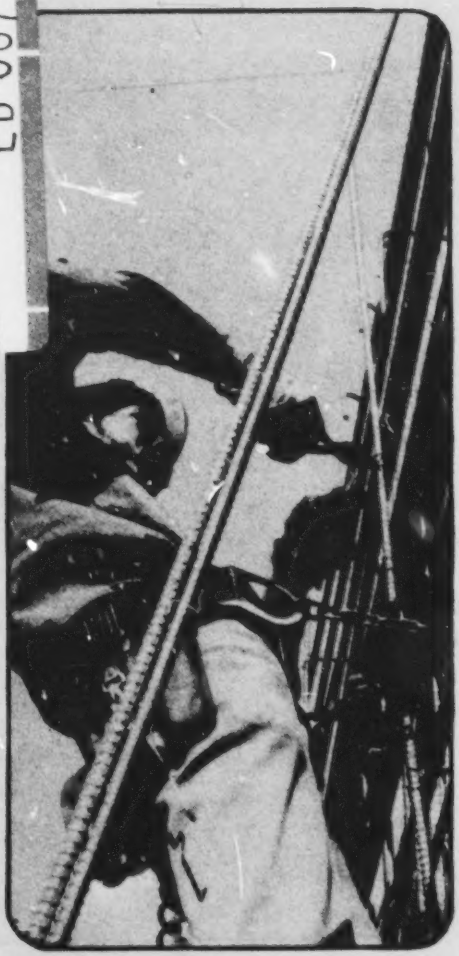

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A GUIDE TO APPRENTICESHIP OPPORTUNITIES IN THE STATE OF WASHINGTON

de 001 035

prepared by the
Coordinating Council for Occupational Education

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Locations of apprenticeship opportunities included in this publication

APPRENTICESHIP OPPORTUNITIES IN THE STATE OF WASHINGTON

a guide published by the
Washington State
Coordinating Council for
Occupational Education

216 Old Capitol Building
Olympia, Washington 98504

...the vital roots

Arthur A. Binnie
state director of vocational education

No one familiar with the history of occupational education could fail to recognize the vital roots it has in apprenticeship. Long before formal schooling existed, as far back as ancient Egypt, artisans learned their trades from master craftsmen. Today, in the partnership of labor, management, and vocational education, a key role is still being filled by organized trades and crafts offering young men and women on-the-job training through apprentice programs.

There are many variations in apprentice requirements, including the length of the particular apprenticeship and the kinds of supportive learning needed. All these are determined by the local joint apprenticeship committees. Persons interested in becoming journeymen should seek out these requirements as part of their educational planning. Several state level resources are listed elsewhere in this publication as an aid to planning for students and counselors.

I salute the continuing efforts of labor and management to provide high quality apprentice program opportunities to our citizens. As a working partner in that enterprise, I pledge the fullest cooperation of our agency in support of the many valuable programs being offered in Washington State.

. . . increasing emphasis

One of the most encouraging current trends is the increasing emphasis upon vocational education and training. This trend is reflected in the enrollments in our vocational-technical institutes, and in vocational education courses in our high schools and community colleges.

The Department of Labor and Industries has played a vital role in Washington State's apprenticeship program since 1941. Our staff of apprenticeship representatives service all parts of the state, working closely with the more than 200 local Joint Apprenticeship Committees which administer the apprenticeship agreements.
I commend this effort to provide more information through the pages of this apprenticeship opportunities guide.

William C. Jacobs
director, Department of Labor and Industries

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introduction...

Young people leaving high school have a difficult and important decision facing them: the choice of a career. Apprenticeship will not always furnish the answer, but it should be considered among the many career options open to them. Assuming that they choose an apprenticeship and decide which specific one is right for them, there appear several immediate and urgent questions to be answered: "Do I meet the qualifications?; How do I apply?; Where are the best opportunities?" This booklet is intended to answer such questions. Whether the young people have the benefit of guidance from a professional counselor or a teacher, the help of parents or friends, or whether it must be a 'do-it-yourself' project, they should find this booklet helpful. The General Information section on pages 8-9 will answer many questions, and therefore should be read first. If any terms are used in this section which are not understood, the explanation will probably be found in the Definition of Terms section on pages 12-14. Specific information on thirty-eight apprenticeships may be found throughout the booklet, and general information is given on approximately eighty other trades at the end of each section labeled, 'Building Trades', 'Machine and Metal Trades' and 'Service and Miscellaneous Trades'. If more information is desired it may be obtained from sources listed on pages 71-72.

foreword...

In our present highly industrialized society the need for skilled craftsmen and technicians is increasing. Now more than ever, young people entering the labor force need to be well-educated and well-trained if they are to find their niche in the work force of the nation.

One of the oldest recorded methods of obtaining necessary skills, training and education is through apprenticeship. This training enables a person to learn the skills of a craft or trade and, at the same time, earn enough to be a self-sufficient and responsible citizen.

The purpose of this booklet is to provide educators, counselors, employment advisors and similar personnel with a handy reference to the apprenticeable trades. It provides concise, thumbnail sketches of many of the crafts for use in discussions and vocational counseling of interested individuals.

If this booklet can help some individuals to enter into useful and satisfying careers, it will serve its purpose well.

acknowledgements...

This booklet was compiled and published by the Trade and Industrial office of the Coordinating Council for Occupational Education, 216 Old Capitol Building, Olympia, Washington 98504.

We wish to acknowledge the cooperation and assistance of the many individuals in labor, education, industry and government who provided the data used. Particular credit should be given to the following:

- The Washington State Apprenticeship Council through the State Supervisor of Apprenticeship, Department of Labor and Industries, Olympia, Washington, and their area representatives throughout the state.
- The Washington State Supervisor, Bureau of Apprenticeship and Training in Seattle, Washington.
- The Apprenticeship Information Center, Department of Employment Security, Seattle local office.
- The many local Joint Apprenticeship Committees throughout the state who contributed information.
- The many local Labor Unions and Industry Associations throughout the state who also contributed helpful information.

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general information...

The Washington Apprenticeship Law

Although apprenticeship itself is at least as old as the ancient Babylonian Code of Hammurabi (around 2000 B.C.), the State of Washington did not enact an apprenticeship law until 1941. There were apprentices in Washington prior to that time, of course. But on June 11, 1941, a new apprenticeship law began to regulate the relationships between employers and employees. The intent of that law remains the same today: to provide an orderly and systematic method by which skilled craftsmen may be trained.

Apprenticeship Division, Washington State Department of Labor and Industries

The Apprenticeship Division of the Department of Labor and Industries is responsible for seeing that the provisions of the apprenticeship law are followed in each community of the state. A supervisor of apprenticeship appointed by the director of the Department of Labor and Industries, oversees several staff members stationed in six cities. Among other duties, this division registers all apprenticeship agreements, promotes the establishment of local apprenticeship programs, certifies that apprentices are paid proper wages, certifies the qualification of local apprenticeship programs so that apprentices may be eligible for draft deferment, and assists veterans in receiving full training benefits.

Washington State Apprenticeship Council

The policy-making authority in the state apprenticeship program rests with the six-member Washington State Apprenticeship Council. The director of the Department of Labor and Industries appoints each member for a period of three years. Three members must represent employer organizations, and three must represent employee organizations. Two ex-officio members represent the Department of Employment Security and the Division of Vocational Education. The supervisor of apprenticeship appointed by the Department of Labor and Industries serves as Secretary to the Council. Included in the responsibilities of the Council are the approval of membership in local joint apprenticeship committees, review and approval of local standards for apprentice training, cancellation of programs which do not comply with state regulations, and adjustment of differences between employers and their apprentices.

Your Local Joint Apprenticeship Committee

Like the State Apprenticeship Council, each local Joint Apprenticeship Committee is made up of equal representation from labor and management. Each committee selects and screens apprentice applicants, selects and approves employers for apprenticeship programs, registers the apprentices with the Washington State Apprenticeship Council and administers the program for each trade. Should you choose to enter an apprenticeship agreement, you will find the help of your local Joint Apprenticeship Committee most valuable.

Safety Division, Washington State Department of Labor and Industries

The Safety Division of the Department of Labor and Industries is the division responsible for safe working conditions and working practices on the job. Safety on a job is acquired as the result of repeatedly doing a task the "right" way, all the time. The time to get started on the "right" way and the "safe" way of performing a job is at the earliest exposure to work. This is the time when apprentices in the various trades or occupations, through apprenticeship training directed by the Joint Apprenticeship Committees, learn how to work safely. When they become journeymen, safety will have been made an integral part of their trade.

on-the-job training programs...

Training programs may be set up in the same manner as apprenticeship programs, with any exceptions authorized by the Council provided that no on-the-job training program shall be established or authorized where there is a parallel apprenticeship program in existence. A training program shall be any program which requires 4,000 or less hours of employment for completion. All of these rules shall apply to them as to apprenticeship agreements and programs, except that they will be approved by the supervisor subject to the review of the Council.

helpful information...

- The final selection of applicants is entirely in the hands of the Joint Apprenticeship Committee (JAC), representing both management and labor. This is the group that sponsors the apprenticeship program. Selection interviews are held periodically, depending on the need for apprentices in the occupation concerned.
- Applicants are usually required to show copies of the following to the Joint Apprenticeship Committee: birth certificate, high school transcript or GED certificate, and discharge from the Armed Forces, if applicable. Some programs require a medical certificate.
- In most cases applicants would need own transportation.
- Physical factors to consider: physically fit for manual labor, good vision, and physical endurance.
- Attitude factors the Committee looks for:
  a. Actual interest in the trade.
  b. Attitude toward hard work.
  c. Sense of responsibility for performance, materials, safety and the like.
  d. Ability to work under supervision; ability to take orders.
  e. Ability to learn to work as part of a crew.
  f. Attitude toward school; an opportunity or a requirement.
- Credit for Previous Experience—Most apprenticeship committees of the various trades grant credit toward completion of an apprenticeship for prior work experience in the trade.
- Ratio of Apprentices to Journeymen—Each standard sets forth a definite ratio of apprentices to journeymen. The general policy in this respect is to permit one apprentice to one journeyman and one more for each additional five journeymen steadily employed. This policy will vary among the trades and in different locations. It should be remembered that because of the limitations on the number of apprentices allowed in these trades and the desirability of the apprentice programs, competition for these positions will be extremely keen. This is particularily true during periods of high unemployment. It should also be pointed out that apprenticeship should not be looked upon as a cure for high unemployment since this is not its primary goal. The latest available figures (Sept. 30, 1972) show the total number of apprentices and trainees in the State of Washington to be 5,980 which represents approxi-

mately four-tenths of one percent of the total work force in the state.

Another comparison which relates to the ratio of apprentices to journeymen and opportunities in apprenticeship on a statewide basis is in the building trades. The total number of apprentices and trainees in the building trades is 3,309 which is approximately 10.8 percent of the total work force in the same trades.

- Selection Interviews—Up to the point of the selection interview, the application process is designed to assist in determining whether the basic qualifications are met by the applicant. However, all applications are forwarded to the appropriate apprenticeship selection committee regardless of whether the basic qualifications have been met. All selections are made in a non-discriminatory manner, and the applicants are scheduled for interview in compliance with CFR 29, Part 30. Those found to be not qualified are so advised by letter. Applicants found qualified are advised when to appear for a selection interview.

  The selection interview is a subjective examination of each applicant in which he is graded by the members of the committee. The committee is usually composed of at least three members of industry and three members of an employee organization or union. In addition to a review of their application records and data, applicants are evaluated and graded upon their work attitudes, interest in the trade, personal characteristics, desire to learn, work experience and similar factors that are of an intangible nature yet important to success as a craftsman.

  Individuals selected by the committee then sign the necessary papers of indenture and are assigned to the employer designated to give him his apprenticeship training. Or, as is often the case, they are placed upon a waiting list until a vacancy occurs. Individuals not selected are formally advised by letter to this effect.

  The foregoing has in a general way outlined some of the basic requirements and procedures involved in making an application for apprenticeship.

- Variations and Exceptions—Some variations from the stated procedures, qualifications, wages, etc. may be found because of changes in conditions and the necessary delay in gathering information and publication of this booklet. Labor-management negotiations may change wages at any time. Exceptions may be made to the qualifications, such as age and education requirements, by the local Joint Apprenticeship Committees for good reason.

  Another variation in age exists for veterans. Most apprenticeship committees will extend the maximum age limit up to four years for veterans.

definition of terms...

Apprentice:

A qualified person of legal working age who has entered into a written agreement with an employer under which the employer is to provide an opportunity for the apprentice to learn an apprenticeable occupation. If the apprentice is a minor the agreement must be signed by his parents or guardian.

Apprenticeable Occupation:

Is one which . . .

a. customarily must be learned by practical training on the job.
b. is clearly identified and commonly recognized or accepted throughout the industry.
c. requires 4,000 or more hours of work experience to learn.
d. requires related instruction to supplement the work experience.
e. involves the development of skill sufficiently broad to be applicable in like occupations throughout an industry.

Apprenticeship Agreement:

A written agreement, registered with the State Apprenticeship Council, providing for not less than 4,000 hours of reasonably continuous employment, and for participation in an approved schedule of work experience through employment, which shall be supplemented by a minimum of 144 hours per year of related and supplemented instruction.

Apprenticeship Standards:

The document which embodies the procedure for the training of apprentices, setting forth the terms and conditions associated therewith, including wages, hours, conditions of employment, training on the job and related instruction. The duties and responsibilities, including administrative procedure of the committee, are also set forth.

State Apprenticeship Council:

The State Apprenticeship Council is the registration, administrative and approval agency for apprenticeship programs in the state. Through its representatives, the Council directs and supervises apprenticeship programs throughout the state and works closely with employers, employee associations and unions, and apprenticeship committees. The Council is authorized by the Veterans Administration as the approval agency for enrollment of veterans for the purpose of receiving G.I. Bill benefits in apprenticeships and O.D.T. programs. Every approved program and each apprentice is registered with the Council.

Bureau of Apprenticeship and Training:

An agency of the United States Department of Labor that stimulates and assists industry in the development, expansion, and improvement of apprenticeship programs. The Bureau's principal functions are to encourage the establishment of sound apprenticeship programs and to provide technical assistance to industry in setting up such programs.

Joint Apprenticeship Committee:

A group equally representative of management and labor established to carry out the development and administration of apprenticeship and journeyman training programs.

Journeyman:

A worker who has satisfactorily completed his apprenticeship and is classified as a skilled worker in his trade.

Probationary Period:

All apprentices shall serve a probationary or trial period not exceeding 180 days. During the probationary period the apprenticeship agreement may be canceled at the request of either party thereto, and due notice given the Committee. After completion of the probationary period the agreement may be canceled by the local committee after adequate cause has been shown, and all parties to the agreement have had an opportunity to be heard.

Program Sponsor:

An individual employer, a group of employers or a combination of employer and employee group or groups who have undertaken to establish and operate a formalized apprenticeship program to develop skilled craftsmen in apprenticeable occupations.

Registration Agency:

The Washington State Apprenticeship Council recognized by and conforming to the standards established by the United States Bureau of Apprenticeship and Training.

Related Instruction:

Apprentices are required to attend classes in subjects related to the trade each year of his apprenticeship (144 hours per year of instruction is normally considered minimum). To accomplish this program sponsors request local schools which have been designated by the State Vocational Education Division to establish classes of supplemental related instruction for apprentices. They also cooperate with the local vocational school officials in determining the subjects to be taught and the qualifications of instructors. The program sponsor may further recommend journeymen in the trade who have the knowledge and ability to teach related classroom instruction to the apprentices.

Union:

The term "Union" shall mean the duly recognized contractual bargaining agency for a specific company, trade area and industrial group or groups.

Vocational Education:

The primary purpose of vocational education is to equip persons for employment. The program is designed to serve the needs of people in two distinct groups: (1) adults who have entered upon, and (2) youth and adults who are preparing to enter occupations in agriculture, business, homemaking, distribution, trade, technical, and industrial fields requiring less than a college degree.

Work Experience:

The time an apprentice spends on the job under journeyman supervision, learning, step by step, through demonstration and practice, the individual work processes of a chosen skilled occupation.

Selection:

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, color, religion, national origin, or sex. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required by the rules of the Washington State Apprenticeship Council and Title 29, Part 30 of the Code of Federal Regulations.

The local vocational director or trade and industrial education supervisor of **any** high school, technical institute or community college in Washington State can discuss apprenticeship training with interested applicants and direct them to the appropriate "application spot" in that community or to the nearest apprenticeship field representative. In many areas, upon completion of a trade preparatory program in a high school, technical institute or community college, the student applicant may be accepted into training as an apprentice. Upon acceptance or after the completion of a specified probationary period, the apprentice's prior training is evaluated by the local joint apprentice committee and he may be given advanced standing as an apprentice in the trade.

For eligible veterans there is an additional pleasant financial twist. The Veterans' Education and Training Amendments Act of 1970 provides the following:

regardless of the wages paid by the employer, VA's monthly training assistance allowance to a veteran pursuing a full-time approved apprenticeship is as follows:

Periods of Training	No dependents	One dependent	Two dependents	Each additional dependent
First 6 months	$160	$179	$196	$8 for each
Second 6 months	120	139	156	8 for each
Third 6 months	80	99	116	8 for each
Fourth and any succeeding 6-month period	40	59	76	8 for each

apprenticeships
in the
BUILDING TRADES...

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 30

Apprenticeship Training Available:

Seattle Spokane

ASBESTOS WORKER

863.884

WORK PERFORMED

Selects and applies insulation material to exclude or retain heat. Works on equipment such as boilers, tanks, hot or cold-air ducts or pipes, and steam generators. Secures pipe insulation with metal bands and where necessary spot welds wire studs to flat surfaces on which insulation material is to be affixed. Applies waterproofing cement and coats joints with cement prior to wrapping with tapes where necessary. An asbestos worker may also be designated Insulation Worker.

ENTRANCE REQUIREMENTS — DURATION 4 years

Age: Between 18 and 30; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, general science, industrial arts drafting I, industrial arts drafting II, geometry and trigonometry

WAGES EARNED

Apprentice starting wage per hour, $4.96

Wage increase will average 5% each six-month period

Journeyman wage per hour, $8.27

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 18

Apprenticeship Training Available:

Seattle

BOATBUILDER

860.381

WORK PERFORMED

Fabricates, repairs, or modifies wooden boats, liferafts, and pontoons, using handtools, power tools, and measuring instruments following blueprints. Lays out full-scale outline of boat on mold-loft floor, using crayon, scales, and protractor, following blueprints and table of offsets. Establishes dimensional reference points on layout and makes templates of parts. Scribes dimensional lines on lumber following templates and cuts and forms parts. Assembles shell of boat by forming steam-softened sidings on mold, removing mold, and securing sidings to keel or by securing ribs to keel.

ENTRANCE REQUIREMENTS

DURATION 4 years

Age: Between 18 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Algebra, plane geometry, shop courses, drafting, blueprint reading, trigonometry

WAGES EARNED

Apprentice starting wage per hour, $2.81

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.69

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 93

Apprenticeship Training Available:

Bellingham	Seattle
Kelso	Spokane
Moses Lake	Tacoma
Olympia	Wenatchee
Pasco	Yakima

BRICKLAYER

861.381

WORK PERFORMED

The bricklayer apprentice learns his trade on the job under the supervision of an experienced bricklayer. He learns to construct walls, fireplaces, chimneys and other structures with masonry materials. He works with brick, cement and cinder blocks, stone, marble, structural tile, and precast concrete panels. In laying brick, a bricklayer first spreads a layer of soft mortar. He applies mortar to the last brick laid or the one to be laid, places the brick on the bed of mortar and works it into the desired position by hand. When necessary, he breaks brick with a trowel to fill spaces too small for a whole brick. Using a trowel, brick hammer or a special finishing tool, he trims the mortar between the bricks to achieve a neat appearance. The majority of bricklayers work on new building construction. Bricklayers also do a considerable amount of alteration work such as fire-resistant partitions and stone-front remodeling. Some bricklayers specialize in work for industrial establishments where furnace and kilns require the installation of special fire brick and refractory brick linings.

ENTRANCE REQUIREMENTS **DURATION 4 years**

Age: Between 16 and 30; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Mathematics, mechanical drawing, shop courses, English, blueprint reading

WAGES EARNED

Apprentice starting wage per hour, $2.88-$3.57

Wage increase will average 5% each six-month period

Journeyman wage per hour, $6.00-$7.20

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 926

Apprenticeship Training Available:

Aberdeen	Bellingham
Bremerton	Everett
Longview	Moses Lake
Mount Vernon	Olympia
Port Angeles	Seattle
Spokane	Tacoma
Vancouver	Yakima

CARPENTER

860.381

WORK PERFORMED

Under the supervision of a journeyman carpenter, the apprentice saws, planes, chisels, and otherwise shapes, fits, and fastens together structural forms, using such materials as wood, fibreboard and other woodworking products. His first instruction is in the proper care and use of carpentry tools and materials. His first carpentry assignments may be such things as constructing foundation forms, pouring chutes, or wood scaffolds. As he progresses to higher skills, he learns layout, flooring, frame and rafter cutting and assembly as well as sheathing, roofing, sheetrock and studding installation. The high point of his apprenticeship is his assignment to finish work, which includes the installation of windows, door frames and sash work. It also includes hanging doors, constructing stairs, installing paneling, molding, hardware and associated trim.

ENTRANCE REQUIREMENTS — DURATION 4 years

Age: Between 17 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Algebra, plane geometry, drafting, shop courses, blueprint reading, trigonometry

WAGES EARNED

Apprentice starting wage per hour, $3.47-$4.15

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.27-$6.60

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 89

Apprenticeship Training Available:

Bellingham
Everett
Kelso
Seattle
Spokane
Tacoma
Yakima

CEMENT FINISHER (Same as Cement Mason)

844.884

WORK PERFORMED

The principal work of cement masons is finishing the exposed concrete surfaces on many types of construction projects. These projects range from small jobs, such as the finishing of patios, floors, and sidewalks, to work on huge dams, miles of concrete highways, foundations and walls of large buildings, airport runways, and missile launching sites. On small projects, a cement mason assisted by one or two helpers may do all the concrete work; on large projects, crews of several cement masons and many helpers may be employed.

ENTRANCE REQUIREMENTS — DURATION 3 years

Age: Between 17 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, algebra I, geometry, mechanical drawing

WAGES EARNED

Apprentice starting wage per hour, $4.13-$4.27

Wage increase will average 5% each six-month period

Journeyman wage per hour, $5.91-$6.10

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 53

Apprenticeship Training Available:

Ephrata	Kennewick
Pullman	Seattle
Spokane	Portland, Ore.
Yakima	

CARPET, LINOLEUM AND RESILIENT TILE LAYER

864.781

WORK PERFORMED

Floor covering layers install, replace, and repair resilient tile, linoleum, and carpeting on floors in residential, commercial, and industrial buildings. The mechanic installs these coverings on wood, concrete, metal, and stone floors which may vary in size from a small kitchen or hallway to a large supermarket floor or hotel lobby. In installing resilient floor covering such as asphalt tile, the floor covering mechanic first makes sure that the surface is dry, firm and smooth. He may sand rough or painted floors and cover cracks or other irregularities with a filler material. After making a floor layout plan, he then applies an adhesive and lays the floor covering. Special care is taken in fitting floor covering around doors and irregular wall surfaces. In installing carpet, the mechanic may anchor a "tackless strip" with adhesive or nails along the border of the installation. This strip secures the carpet when it is installed. Padding is then cut and placed within the framework of the strip and the carpet placed in position. Finishing touches include the use of a special roller to obscure seam markings that result when carpet sections are joined.

ENTRANCE REQUIREMENTS **DURATION 3 years**

Age: Between 16 and 26; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Mechanical drawing, mathematics, blueprint reading

WAGES EARNED

Apprentice starting wage per hour, $3.05-$3.20

Wage increase will average 5% each six-month period

Journeyman wage per hour, $6.10-$6.41

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 87

Apprenticeship Training Available:

Seattle Spokane
Tacoma

DRYWALL APPLICATOR
842.884

WORK PERFORMED

Applies plasterboard or other wallboard to ceiling and interior walls of building. Cuts and fits wallboard to studding and joists, using hand-tools. Scribes measurements on wallboard, using straightedge or tape as a gauge. Cuts out openings, using hawkbill knife and hammer. Fits and nails wallboard to supports. Trims rough edge of wallboard to obtain even joint, using knife. Workers perform as a team when installing ceiling.

ENTRANCE REQUIREMENTS — DURATION 2 years

Age: Between 17 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, reading, vocational prep courses

WAGES EARNED

Apprentice starting wage per hour, $3.05

Wage increase will average 10% each six-month period

Journeyman wage per hour, $6.10

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 39

Apprenticeship Training Available:

Everett
Kelso
Kennewick
Olympia
Pullman
Seattle
Spokane
Tacoma
Yakima

DRYWALL FINISHER

842.884

WORK PERFORMED

Seals joints between plasterboard or other wallboards to prepare wall surface for painting or papering. Mixes sealing compound by hand or with portable electric mixer, and spreads it over joints between boards, using trowel, broadknife, or spatula. Presses paper tape over joint to embed it into compound and seal joint. Spreads and smooths cementing material over tape, using trowel or floating machine to blend joint with wall surface. May float cementing material over entire wall surface to attain smooth, plaster-like surface. May sand rough spots after cement has dried.

ENTRANCE REQUIREMENTS

DURATION 2 years

Age: Between 16 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, reading, vocational prep courses

WAGES EARNED

Apprentice starting wage per hour, $2.97-$3.07

Wage increase will average 5% each six-month period

Journeyman wage per hour, $5.94-$6.14

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 422

Apprenticeship Training Available:

Everett
Kennewick
Longview
Pasco
Seattle
Spokane
Tacoma
Wenatchee
Yakima

CONSTRUCTION ELECTRICIAN

824.281

WORK PERFORMED

During his formal training, the apprentice electrician can expect to work for all kinds of contractors and perform all kinds of electrical work. Every effort is made to give him diversified as well as intensive training. Most of his work is performed side by side with an electrician and under his guidance. One of the first tasks of the new apprentice is to learn about the tools and materials used in the trade by working in the stockroom and acting as helper to skilled workers. Upon completion of training the apprentice electrician is fully qualified to perform any or all of the following duties: installation and testing of lighting systems in all types of buildings—single family residences, apartment buildings, offices, stores, hotels, hospitals, power plants, and factories; plan and lay out electrical systems for communications; measure, cut, and install proper lengths of conduit, wire, and cable; and splice wires using established techniques. All jobs must be completed so as to conform to rigid building codes.

ENTRANCE REQUIREMENTS **DURATION 4 years**

Age: Between 18 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

*Algebra, *plane geometry, trigonometry, shop courses, blueprint reading, physics

* One year each required

WAGES EARNED

Apprentice starting wage per hour, $4.20
Wage increase will average 5% each six-month period
Journeyman wage per hour, $8.04
For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 73

Apprenticeship Training Available:

Ephrata
Everett
Kennewick
Longview
Seattle
Spokane
Tacoma
Wenatchee
Yakima

ELECTRICAL WORKER

824.281

Electrical worker includes the following trades:

1. Appliance Serviceman—repairs electrical household appliances
2. Marine Electrician—electrical installation and repair aboard ship
3. Neon Signman—installs and repairs neon signs
4. Oil Burner Electrician—installs and repairs the electrical portion of fuel oil furnaces
5. Radio and Television Serviceman—tests and repairs radios and television sets
6. Shop Electrician—rewinds motors and general electrical work
7. Sound Communications and Electronics Control—installs and repairs intercommunications systems, F.M. radios, telephone systems, etc.

ENTRANCE REQUIREMENTS

DURATION 3-4 years

Age: Between 18 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

*Algebra, *plane geometry, trigonometry, shop, [illegible] blueprint reading, physics

* One year each required

WAGES EARNED

Apprentice starting wage per hour, $3.01-$3.75

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.89-$7.17

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 17

Apprenticeship Training Available:

Seattle
Tacoma
Spokane
Yakima

LATHER
842.781

WORK PERFORMED

Fastens wooden, metal, or rockboard lath to walls, ceilings, and partitions of buildings to provide supporting base for plaster, fireproofing, or acoustical materials. Erects horizontal metal framework to which laths are fastened, using nails, bolts, and stud gun. Drills holes in floor and ceiling, using portable electric tool, and drives ends of wooden or metal studs into holes to provide anchor for furring or rockboard lath. Wires horizontal strips to furring to stiffen framework. Cuts lath to fit openings and projections, using handtools or portable power tools.

ENTRANCE REQUIREMENTS — DURATION 3 years

Age: Between 16 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED) must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Algebra I, advanced math, mechanical drawing, geometry, general shop

WAGES EARNED

Apprentice starting wage per hour, $2.92

Wage increase will average 5% each six-month period

Journeyman wage per hour, $6.49

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 34

Apprenticeship Training Available:

Ephrata
Kennewick
Pullman
Spokane
Yakima

GLAZIER (Same as Glass Worker)
865.781

WORK PERFORMED

Apprentice glaziers or glaziers engage in construction work involving the cutting, fitting and installation of plate glass, window glass, mirrors and special items such as leaded glass panels. In making a glass installation, the glazier cuts the glass to size or uses precut glass. The glazier puts a bed of putty into the wood or metal sash and presses the glass into place. He fastens the glass with clips or triangular metal points and then smooths another strip of putty on the outside edges of the glass to keep out moisture. When installing structural glass, which is used to decorate building fronts, walls, ceilings and partitions, the glazier applies mastic cement to the supporting backing and presses the glass into it. The glass may require trimming with a glass cutter if it is not precut to specifications. Some glassworkers specialize in certain types of work such as auto glass installation or stained glass work.

ENTRANCE REQUIREMENTS **DURATION 3-4 years**

Age: Between 16 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

English, plane geometry, mechanical drawing, algebra, shop courses, science courses

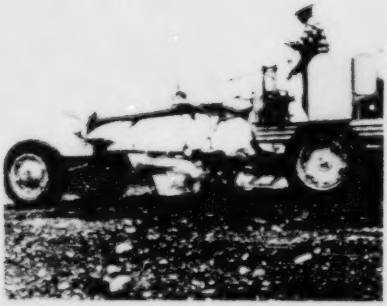
WAGES EARNED

Apprentice starting wage per hour, $2.85-$3.22

Wage increase will average 5% each six-month period

Journeyman wage per hour, $5.54-$5.86

For more information see pages 71-72.



OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 69

Apprenticeship Training Available:

Spokane

OPERATING ENGINEER

859.883

WORK PERFORMED

Operating Engineers are the men who operate and maintain various types of power-driven construction machines, such as bulldozers, cranes, pile drivers, power shovels, derricks, earth graders, and tractors which dig, scrape and move great amounts of earth or hoist large quantities of building supplies. Some machines require the operators to turn valves, adjust hand wheels and press pedals to drive the machines and control the attachments. Other machines, such as cranes, require the constant use of both hands and both feet. Operating Engineers may also be required to service their machines and move the machine from one construction site to another.

ENTRANCE REQUIREMENTS — DURATION 3 years

Age: Between 18 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, general science

WAGES EARNED

Apprentice starting wage per hour, $3.90-$4.45

Wage increase will average 5% each six-month period

Journeyman wage per hour, $6.00-$6.85

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 7

Apprenticeship Training Available:

Seattle
Tacoma
Spokane
Yakima

PLASTERER

842.781

WORK PERFORMED

Applies coats of plaster to interior walls, ceilings, and partitions of buildings to produce finished surface, according to blueprints, architect's drawings, or oral instructions. Directs workers to mix plaster to desired consistency and to erect scaffolds. Spreads plaster over lath or masonry base, using trowel, and smooths it with darby and float to attain uniform thickness. Applies scratch brown or finish coats of plaster to wood, metal or board lath successively.

ENTRANCE REQUIREMENTS

DURATION 4 years

Age: Between 18 and 24; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, blueprint reading

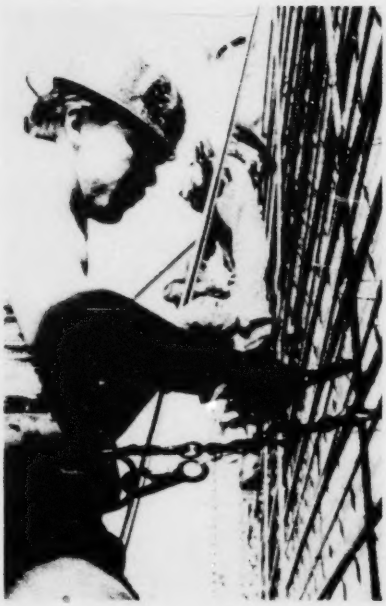
WAGES EARNED

Apprentice starting wage per hour, $2.11

Wage increase will average 5% each six-month period

Journeyman wage per hour. $6.05

For more information see pages 71-72.



OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 177

Apprenticeship Training Available:

Bellingham Seattle
Spokane Tacoma

IRONWORKER

801.781

WORK PERFORMED

Outside ironworkers erect the steel framework of bridges, buildings and other structures. During his training, the apprentice learns to use and handle safely the tools, machines, equipment and materials commonly used in the trade; read blueprints and working drawings; form, shape, erect and assemble various metal structures and reinforcing iron. He also learns arc and gas welding, rigging, bolting and riveting. In addition to new construction, iron workers also alter and repair existing structures. Ironworkers also unload and move to installation points heavy machinery used in sawmills, paper mills and other manufacturing plants. This work is classed as "machinery moving and rigging" and requires a great degree of skill and judgment. In erecting steel structures, the apprentice ironworker learns to set up hoisting equipment used to raise and place steel members. He bolts steel in place, aligns the structure and then permanently fastens the steel structure by welding or riveting. The apprentice learns to cut and weld steel and to install reinforcing steel for concrete structures. Some reinforcing is in the form of coarse mesh made of heavy steel wire. When using mesh, the ironworker measures the surface to be covered, cuts and bends the mesh to the desired shape and anchors it in place over the area to be reinforced. In the construction of large buildings, ironworkers generally specialize in particular operations, such as riveting or welding.

ENTRANCE REQUIREMENTS **DURATION 3 years**

Age: Between 18 and 30; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Mathematics, blueprint reading, mechanical drawing, welding

WAGES EARNED

Apprentice starting wage per hour, $5.90

Wage increase will average 10% per year

Journeyman wage per hour, $7.38

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 96

Apprenticeship Training Available

Aberdeen	Bellingham
Bremerton	Everett
Grand Coulee	Longview
Pasco	Seattle
Spokane	Tacoma
Yakima	Richland

PIPEFITTER (Same as Steamfitter)

862.381

WORK PERFORMED

Lays out, fabricates, assembles, installs, and maintains piping and piping systems, fixtures, and equipment for steam, hot water, heating, cooling, lubricating, and industrial processing systems, on basis of knowledge of system operation and study of building plans or working drawings. Selects type and size of pipe and related materials according to job specifications. Cuts pipe, using hacksaw, pipe cutters, hammer and chisel, and cutting torch. May be designated according to specialty as Gas Fitter, Sprinkler Fitter or Steamfitter.

ENTRANCE REQUIREMENTS — DURATION 5 years

Age: Between 18 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, algebra, geometry, general science, blueprint reading

WAGES EARNED

Apprentice starting wage per hour, $2.86-$3.53

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.27-$7.06

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 32

Apprenticeship Training Available:

Bremerton
Longview
Pasco
Seattle
Spokane
Tacoma
Yakima

REFRIGERATION MECHANIC

637.281

WORK PERFORMED

Installs and repairs industrial and commercial refrigerating and cooling systems according to blueprints and engineering specification, using knowledge of refrigeration, structural layout, and function and design of components. Lays out reference points for installation of structural and functional components. Drills holes and installs mounting brackets and hangers into floor and walls of building. Assembles structural and functional components.

ENTRANCE REQUIREMENTS

DURATION 5 years

Age: Between 18 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, algebra, plane geometry, mechanical drawing, shop courses

WAGES EARNED

Apprentice starting wage per hour, $3.53

Wage increase will average 5% each six-month period

Journeyman wage per hour, $7.06

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 61

Apprenticeship Training Available:

Aberdeen	Bellingham
Bremerton	Everett
Longview	Moses Lake
Mount Vernon	Port Angeles
Seattle	Tacoma
Vancouver	Yakima

MILLMAN (Same as Cabinetmaker)

660.280

WORK PERFORMED

The tradition of fine craftsmanship among woodworkers is centuries old, dating back to a period when carpenters did all woodwork, structural as well as decorative. Gradually, some workers began specializing in the finer phases of their craft—furniture, fixtures, interior woodwork, and paneling, which had to be pleasing to the eye as well as sturdy and utilitarian. They cut, formed, finished, and fitted each piece by hand, slowly and laboriously. These specialists became known as finish carpenters and cabinetmakers. Modern machines relieve them of much of the labor of cutting and shaping the wood with which they work. The use of these machines created still another specialist in woodworking, the millman. The millman sets up and operates various machines which he uses to maintain a stock of milled lumber. The cabinetmaker draws upon this pre-milled stock to construct most of the cabinet work he does. The apprentice receives training in both cabinetmaking and milling. The time and emphasis given to development of skills in the various work processes will depend on the nature of work done by a specific shop. The millman in a small establishment may assemble some of the objects for which he cuts the material and many cabinetmakers still carry on the entire process of fabrication. The apprentice learns to set up and operate shop machines such as cut-off saws, rip saws, band saws, jointers, planers, molding machines, tenoner, mortiser, router and shaper.

ENTRANCE REQUIREMENTS **DURATION 4 years**

Age: Between 17 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Algebra, blueprint reading, wood shop, geometry, mechanical drawing

WAGES EARNED

Apprentice starting wage per hour, $2.58-$3.22

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.30-$5.49

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 60

Apprenticeship Training Available:

Seattle
Tacoma
Spokane
Yakima

ROOFER

866.381

WORK PERFORMED

Covers roofs with roofing materials other than sheet metal, such as composition shingles or sheets, wood shingles, or asphalt and gravel, to make them waterproof. Cuts roofing paper to size, using knife, and nails or staples it to roof in overlapping strips to form base for roofing materials. Fastens composition shingles or sheets to roof with asphalt cement or nails. May be designated according to specialty as Composition Roofer, Damper-Waterproofer, Slate-and-Tile Roofer.

ENTRANCE REQUIREMENTS — DURATION 2 years

Age: Between 18 and 30, Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General science, general math, industrial arts—woods, industrial arts—metal

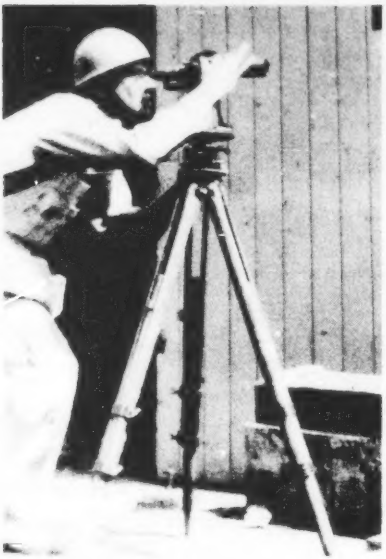
WAGES EARNED

Apprentice starting wage per hour, $5.32

Wage increase will average 5% each six-month period

Journeyman wage per hour, $7.10

For more information see pages 71-72.



OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 9

Apprenticeship Training Available:

Bremerton
Longview
Seattle
Tacoma
Vancouver

SHIPWRIGHT

860.381

WORK PERFORMED

Constructs or repairs ships following blueprints or ship's plans. Sights, plots, and marks reference points and lines on building dock or way to maintain alignment of vessel during construction or repair, using transit, plumb bob, tapes, and levels. Builds keel and bilge blocks, cradles, and shoring for supporting ships in drydock, marine railways, shipways, or building docks, using power and hand woodworking tools. Positions and secures blocking and other structures on dock platform according to ship's blueprints. Aligns vessel over blocks (Dockman). Establishes reference points and line of ship's hull for locating machinery and other equipment.

ENTRANCE REQUIREMENTS

DURATION 4 years

Age: Between 17 and 32; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

English, reading, oral communications, report writing, general math, blueprint reading

WAGES EARNED

Apprentice starting wage per hour, $2.60-$2.81
Wage increase will average 5% each six-month period
Journeyman wage per hour, $4.34-$4.69
For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 104

Apprenticeship Training Available:

Bellingham	Olympia
Spokane	Longview
Everett	Aberdeen
Tacoma	Yakima
Seattle	Pasco

PAINTER AND DECORATOR

840.781

WORK PERFORMED

Painting and paperhanging are separate skilled trades. However, apprenticeship committees generally require painter apprentices to include paperhanging in their program. Painters prepare the interior and exterior surfaces of commercial and industrial buildings, houses and other structures or fixtures and then apply paint, varnish, enamel, lacquer, and similar preservative and decorative materials. Paint and other finishes are applied to plaster, wood, brick, concrete, metal, and other materials in both new construction and in redecorating previously finished surfaces. Paperhangers cover room interiors with paper, fabric, vinyls and other materials. One of the important duties of the painter, especially in repainting, is to prepare the surface. Loose paint must be removed by scraping or by heating with a blowtorch and then scraping. Often, surface must be covered with a prime coat or sealer to provide a suitable base. A painter must be skilled in handling brushes and other painting tools in order to apply paint thoroughly, uniformly, and rapidly to any type of surface. He must be able to mix paints, match colors, and have a knowledge of paint composition and color harmony. He must also know the characteristics of common types of paints and finishes from the standpoint of durability, suitability for different purposes and ease of application. Painters must know how to erect scaffolding including "swing stages" and "bosun chairs" which they often use when working on tall buildings.

ENTRANCE REQUIREMENTS **DURATION 3 years**

Age: Between 16 and *; Birth certificate may be required.

* No maximum age limit in some areas of state

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Art, chemistry, shop courses, English

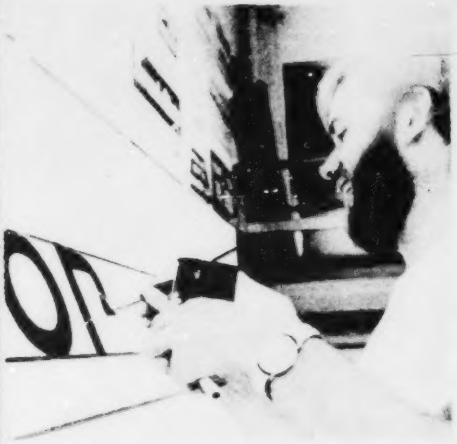
WAGES EARNED

Apprentice starting wage per hour, $3.06-$3.71

Wage increase will average 5% each six-month period

Journeyman wage per hour, $5.94-$6.12

For more information see pages 71-72.



OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 12

Apprenticeship Training Available:

Hoquiam
Olympia
Seattle
Spokane
Tacoma

SIGN AND PICTORIAL PAINTER

970.381

WORK PERFORMED

The principal specialities of the sign painter's occupation are pictorial painting, gold leaf work, sign lettering and show cards. The apprentice receives training in the methods and techniques of all these work processes and products. The apprentice learns to design, lay out, and paint lettering and designs using a variety of techniques and materials to paint or otherwise produce the required sign. Pictorial artists make greatly enlarged reproductions of art work that is often supplied by the advertiser. To assume fidelity of detail and to facilitate the work, they use full scale patterns in laying out the design on the sign surface. The pictorial artist needs special artistic skills that require many years for full development. Many outdoor signs consist mostly if not entirely of lettering. Gold leaf lettering requires great skill and is an art in itself. The men who make such signs are not necessarily pictorial artists, but sign painters of better than average skill. Show card writing is the least formalized kind of sign making. The sign painter uses opaque paints and inks of many colors and special pens and brushes. Most of the work is freehand; but if layout is needed, he usually sketches in the broad outlines.

ENTRANCE REQUIREMENTS — DURATION 4-5 years

Age: Between 16 and 27; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Mathematics, lettering, chemistry, drawing, art, English

WAGES EARNED

Apprentice starting wage per hour, $2.21

Wage increase will average 5-10% each six-month period

Journeyman wage per hour, $6.33

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 35

Apprenticeship Training Available:

Seattle

SPRINKLER FITTER

862.381

WORK PERFORMED

A sprinkler fitter is a pipe fitter specialist in fire protection. He installs, repairs, and maintains all types of fixed piping fire extinguishing systems. While most of this work deals directly with automatic sprinkler systems, he also has the skills necessary to install and service a wide variety of other fire protection equipment such as standpipes, carbon dioxide systems, foam systems and dry chemical systems. Although this is hard work requiring dedicated, intelligent men who must travel in the performance of their trade, it is a very rewarding profession not only financially, but also in terms of personal satisfaction.

ENTRANCE REQUIREMENTS — DURATION 5 years

Age: Between 18 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, algebra, geometry, general science, blueprint reading

WAGES EARNED

Apprentice starting wage per hour, $3.67

Wage increase will average 4% each six-month period

Journeyman wage per hour, $6.80

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 172

Apprenticeship Training Available:

Aberdeen	Bellingham
Bremerton	Everett
Grand Coulee	Longview
Pasco	Seattle
Spokane	Tacoma
Yakima	

PLUMBER

862.381

WORK PERFORMED

Before the foundations of a new building are laid, the plumber is one of the first construction craftsmen at a new building site and one of the last to leave. The plumber is responsible for laying out and installing water, heating and air pipes and fixtures, as well as waste disposal pipes and appliances. Pipes have to be cut, threaded and bent to conform to the layout of the building. Fixtures such as furnaces, boilers, radiators, water heaters and bath tubs have to be properly installed. The two main areas of plumbing work are new construction and repair or service work. Repair work or remodeling entails removing old instaliation and the installing of new pipes and fixtures. The plumber must know how to read blueprints, engineering sketches and specifications to determine materials to be used and the location of pipes and fixtures, and to plan the work so that it proceeds efficiently. During his five-year training program, the apprentice learns all the procedures and techniques of the craft and the skills necessary to accomplish the work. During this training he works with and under the supervision of a skilled craftsman.

ENTRANCE REQUIREMENTS **DURATION 5 years**

Age: Between 18 and 25; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Algebra, mechanical drawing, blueprint reading, physics, chemistry, shop courses, geometry, trigonometry

WAGES EARNED

Apprentice starting wage per hour, $2.94-$3.33

Wage increase will average 5% each six-month period

Journeyman wage per hour, $5.95-$7.06

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 221

Apprenticeship Training Available:

Bellingham
Everett
Seattle
Walla Walla
Bremerton
Kennewick
Tacoma
Yakima
Richland

SHEET METAL WORKER

804.281

WORK PERFORMED

The apprentice learns to fabricate and install sheet metal items used in air-conditioning and heating systems. He also fabricates and installs a wide variety of other products made from thin metal sheets, such as roofing, siding, partitions and store fronts. In heating or air conditioning work, the sheet metal worker lays out the job and determines the gauge and type of sheet metal to be used. He cuts and forms the metal with a variety of machines and tools; then welds, bolts, rivets or solders the seams and joints. The apprentice learns to set up and operate fabricating machines such as shears, brakes and bending rolls; operates soldering and welding equipment to join together sheet metal parts; and uses files and portable grinders to smooth seams, joints and burred surfaces. He learns to use such instruments as calipers and micrometers to determine that assemblies meet specifications. He learns to read blueprints and prepare shop drawings which can be read and understood by other mechanics. Sheet metal workers are employed mainly by plants that fabricate and install heating, refrigeration or air-conditioning equipment and by contractors engaged in residential, industrial and commercial building construction.

ENTRANCE REQUIREMENTS **DURATION 4 years**

Age: Between 18 and 26; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Mechanical drawing, metal shop, blueprint reading, algebra, geometry, trigonometry

WAGES EARNED

Apprentice starting wage per hour, $3.03-$3.91

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.65-$7.07

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 17

Apprenticeship Training Available:

Bellingham
Moses Lake
Seattle
Spokane
Tacoma
Wenatchee

TILE SETTER

861.781

WORK PERFORMED

The tile setter attaches tile (a thin slab of baked clay, stone, or other material) on walls, floors, or ceilings according to blueprints or other instructions. For walls and ceilings, the tile setter applies a setting bed to the surface or other supporting backing. This setting bed consists of a float coat of sand and cement, plus a thin coat of pure cement mixed with water, or one of a number of patented portland cement mixtures. The tiles are then tapped into place with a trowel handle. In laying tile floors, the tile setter adds cement to the fresh concrete subfloor and then lays the tile. He chips the tile with a hammer and chisel or cuts it with pincers to make it fit into irregular areas, into corners, or around pipes. Small tiles, such as those laid in bathrooms, are available in paperbacked strips and sheets that can be fastened to the floor as a unit using cement or various adhesives. This eliminates the setting of individual tiles. The tile setter is usually assisted by a helper who mixes mortar, sets up scaffolds, supplies the setter with materials, grouts (fills) the joints after the tile setting is completed, and cleans the completed work.

ENTRANCE REQUIREMENTS

DURATION 3 years

Age: Between 17 and 30; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, algebra, blueprint reading, drafting, shop courses

WAGES EARNED

Apprentice starting wage per hour, $3.20-$3.62

Wage increase will average 5% each six-month period

Journeyman wage per hour, $6.40-$7.25

For more information see pages 71-72.

more apprenticeships in the BUILDING TRADES...

In addition to the trades listed in the previous pages nineteen more trades have been approved for apprenticeship in the building trades. They are somewhat less active than those listed individually. The qualifications, application procedures, and methods of training follow generally the same patterns as the other trades. Opportunities are somewhat less because the number of apprentices in these trades is smaller. Beginning wages for apprentices in these trades will vary quite widely, the average being approximately $3.35 to $3.60 per hour.

acoustical applicator (trainee)
beveler
carpenter (industrial)
carpenter-millwright
cleaner, pointer and caulker
electrician (maintenance and industrial)
insulation applicator (trainee)
ironworker
  structural steel and ornamental metal fabricator
  light metal fabricator
marine sheet metal
mason (industrial)
millwright
millwright (maintenance and industrial)
pile driver (trainee)
plumber-fitter (industrial)
sheet metal (industrial)
shipwright
terrazzo worker
tuck-pointer

apprenticeships
in the
MACHINE AND
METAL TRADES...

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 203

Apprenticeship Training Available:

Bellingham	Everett
Bremerton	Montesano
Portland, Ore.	Olympia
Centralia	Pasco
Port Angeles	Seattle
Shelton	Spokane
Tacoma	Vancouver
Yakima	

AUTOMOTIVE MACHINIST (Automotive Repair Shop)

620.281

WORK PERFORMED

Automobile mechanics keep the vast number of automobiles, small trucks and busses in good repair. They do preventive maintenance, diagnose breakdowns and make repairs. Preventive maintenance, which is the systematic examination, adjustment, repair, or replacement of the operating parts of a motor vehicle, is an important responsibility of the auto mechanic. During the course of a periodic maintenance inspection he may replace worn parts, such as distributor points; clean, adjust, or replace spark plugs; adjust the carburetor, brakes, or clutch; and balance the car's wheels. Automobile mechanics use many kinds of tools and equipment. They range from simple handtools to complicated and expensive machines and equipment that help diagnose the trouble and make repairs. Examples of such equipment are wheel alignment machines, motor analyzers, and head lamp aimers. The majority of automobile mechanics perform a variety of repairs. Other mechanics, such as automatic transmission specialists, tune-up men, front-end mechanics and brake mechanics, specialize in one or two types of repair. Some specialists may also do general automobile repair work while others work exclusively at their specialty, depending on the size of the shop or garage.

ENTRANCE REQUIREMENTS **DURATION 4 years**

Age: Between 16 and 31; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Automobile shop, metal shop, general sciences, algebra, English, physics

WAGES EARNED

Apprentice starting wage per hour, $2.30-$3.11

Wage increase will average 3-5 % each six-month period

Journeyman wage per hour, $4.25-$5.30

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 79

Apprenticeship Training Available:

Bellingham	Bremerton
Portland, Ore.	Centralia
Everett	Montesano
Olympia	Pasco
Port Angeles	Seattle
Spokane	Tacoma
Vancouver	Yakima

AUTOMOTIVE BODY AND FENDER
(Same as Auto Sheet Metal)

807.381

WORK PERFORMED

Repairs damaged bodies and body parts of automotive vehicles. Examines damaged vehicles and estimates cost of repairs. Places dolly block against surface of dented areas and beats opposite surface with a hammer to remove dents. Fills depressions with solder or other plastic materials. Removes excessively damaged fenders, panels, and grills, using wrenches and cutting torch, and attaches replacements by welding and by bolting in position. Straightens bent frames, using hydraulic jack and pulling device. Files, grinds, and sands repaired surfaces, using power tools and handtools.

ENTRANCE REQUIREMENTS — DURATION 4 years

Age: Between 16 and 31; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General science, general math, industrial arts, metals I, 11th grade voc. ed. auto-body, 12th grade voc. ed. auto-body

WAGES EARNED

Apprentice starting wage per hour, $2.22-$3.33

Wage increase will average 3-5% each six-month period

Journeyman wage per hour, $4.13-$5.55

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 66

Apprenticeship Training Available:

Seattle Spokane
Tacoma

BOILERMAKER

805.281

WORK PERFORMED

The apprentice boilermaker learns to lay out, fabricate, and assemble steel sheet, plates, tubes, and structural shapes used in the construction, alteration, and repair of ships, storage tanks, pipelines, and innumerable other products made of steel. He makes layouts from blueprints, applying his knowledge of mathematics, product design, effects of heat, and allowances for curvature and thickness of metal. He details location and sequence of cutting, drilling, bending, rolling, punching, and welding operations. He makes templates of wood, paper, or metal. He marks curves, lines, holes, dimensions, and welding symbols onto the workpiece. In fabricating the parts, the apprentice sets up and operates shop machines, such as brakes, rolls, shears, planers, flame cutters, drill presses and punches to form and shape the work. The apprentice learns to position and align the fabricated parts according to specifications preparatory to welding, riveting, or bolting. He aligns the parts using jacks, turnbuckles, wedges, drift pins and pry bars; and removes high spots and levels the work using grinders, files, and cutting torch. Once the parts are correctly positioned and fitted, they are welded, riveted, or bolted together to form the finished product.

ENTRANCE REQUIREMENTS — DURATION 3 years

Age: Between 18 and 26; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Blueprint reading, shop work, algebra, geometry

WAGES EARNED

Apprentice starting wage per hour, $2.93-$4.02

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.34-$6.70

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 56

Apprenticeship Training Available:

Bellingham	Bremerton
Portland, Ore.	Centralia
Everett	Montesano
Olympia	Pasco
Port Angeles	Seattle
Shelton	Tacoma
Vancouver	Yakima

DIESEL MECHANIC

(Same as Heavy Duty Equipment Mechanic)

625.281

WORK PERFORMED

Diesel mechanics maintain and repair diesel engines used to power machines such as buses, ships, trucks, railroad trains, and construction machines such as bulldozers, air compressors, graders, cranes, clam-shells, draglines, ditchers, and backhoes. They maintain and repair diesel and gasoline engines and the various other components of these machines including transmissions, brakes, clutches, differentials, final drives, fuel systems, track systems, hydraulic and pneumatic systems, and torque converters. The major portion of a mechanic's time is spent diagnosing mechanical failures and repairing equipment. Major overhaul of engines and other major components are carried out periodically as recommended by the manufacturer. Defective parts are replaced by new ones or the old ones repaired, the engine is reassembled, tested and reinstalled, thus preventing expensive break-downs on the job. Although emergency breakdowns are kept to a minimum by preventative maintenance, such breakdowns do occur. When they do, a mechanic assigned to emergency field repairs goes to the breakdown, diagnoses the trouble and makes the necessary repairs.

ENTRANCE REQUIREMENTS — DURATION 3-4 years

Age: Between 16 and 32; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Science courses, automobile repair, mathematics, machine shop courses, diesel repair, English

WAGES EARNED

Apprentice starting wage per hour, $2.55-$4.16
Wage increase will average 5% each six-month period
Journeyman wage per hour, $4.25-$6.40
For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 177

Apprenticeship Training Available:

Bellingham	Everett
Centralia	Pasco
Hoquiam	Seattle
Port Angeles	Tacoma
Spokane	Yakima
Vancouver	Richland
Portland, Ore.	

MACHINIST (SHOP)

600.280

WORK PERFORMED

The machinist apprentice learns the highly skilled trade of shaping metal parts to precise dimensions. He completes a well-rounded program of on-the-job training in a machine shop and classroom instruction in related technical subjects. He learns to use the hand tools of the trade and to set up and operate basic metal working power tools such as the engine lathe, milling machine, planer, shaper, grinding machine and special purpose machines. He learns to make metal parts, tooling, and machining from blueprints, engineering sketches or dimension drawings. The apprentice acquires the skills necessary to shape brass, aluminum, cast and wrought iron, and various steel alloys to very close tolerances. He learns how to apply mathematics to all types of shop problems, to use mathematical charts and tables and precision measuring instruments. The machinist's job includes a multitude of tasks covering all phases of machining and making metal parts for a wide variety of machines and products.

ENTRANCE REQUIREMENTS — DURATION 4 years

Age: Between 18 and 40; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Algebra, blueprint reading, mechanical drawing, welding, machine shop, geometry, physics, metal shop

WAGES EARNED

Apprentice starting wage per hour, $2.32-$3.50

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.30-$4.64

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 6

Apprenticeship Training Available:

Seattle

PATTERNMAKER

600.280

WORK PERFORMED

A patternmaker is a highly skilled craftsman who builds patterns used in making molds in which foundry castings are formed. He works from blueprints prepared by the engineering department. He makes a precise pattern for the product, allowing for shrinkage of molten metal used in the casting process and for other factors. The patternmaker prepares patterns from metal stock or, more commonly, from rough castings made from an original wood pattern. To shape and finish the patterns, he uses a variety of metalworking machines, including the engine lathe, drill press, shaper, milling machine, power hacksaw, and grinder, as well as small handtools.

ENTRANCE REQUIREMENTS — DURATION 5 years

Age: Between 18 and *; Birth certificate may be required.
*No maximum age limit

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Algebra, geometry, mechanical drawing, shop courses

WAGES EARNED

Apprentice starting wage per hour, $3.50

Wage increase will average 5% each six-month period

Journeyman wage per hour, $6.43

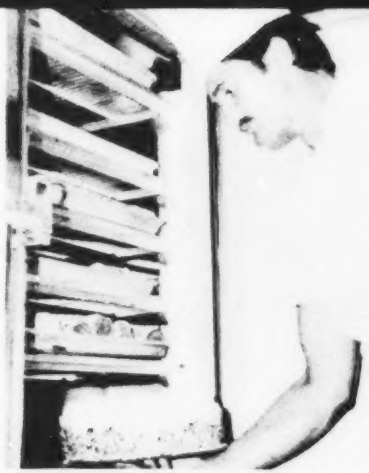
For more information see pages 71-72.

more apprenticeships in the MACHINE AND METAL TRADES...

In addition to the trades listed in the previous pages, eighteen more trades have been approved for apprenticeship in the Machine and Metal trades. They are somewhat less active than those listed individually. The qualifications, application procedures, and methods of training follow generally the same patterns as the other trades. Opportunities are somewhat less because the number of apprentices in these trades is smaller. Beginning wages for apprentices in these trades will vary quite widely, the average being approximately $2.75 to $3.50 per hour.

airframe and powerplant mechanic
assembly mechanic
auto glazier
automotive partsman
blacksmith
boilermaker (maintenance) metal fabricator
farm equipment mechanic
machinist (industrial)
machinist metal fabricator
maintenance machinist
maintenance mechanic
marine pipefitter
model maker
sawmaker
scale mechanic
template, jig and fixture builder
tool and cutter grinder operator
tool and die maker
molder and coremaker

apprenticeships
in the
SERVICE AND
MISCELLANEOUS TRADES...



OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 39

Apprenticeship Training Available:

Seattle Spokane
Tacoma

BAKER

526.781

WORK PERFORMED

Bakers prepare baked goods, such as bread, cakes, cookies, pies and other pastries. They measure ingredients and mix them into dough for baking. Bakers also prepare fillings and icings that are often a part of pastry products. There is a sharp distinction between the skills of a baker who works in a large mechanized bakery, where thousands of loaves of bread are turned out daily, and the baker in a neighborhood bakery who works almost entirely with his hands. In these shops, the baker must be skilled in all the baking processes and is often called a custom baker. It is these hand shops which present the opportunity for the apprentice to develop his skill in all the baking processes under the guidance of a skilled baker. The apprentice learns to measure flour, sugar, shortening, and other ingredients and to prepare batters, doughs, fillings, and icings, using scale and graduated containers. He mixes and cooks the ingredients according to specifications. He learns to roll, cut, and shape dough to form rolls, pie crusts, tarts, cookies, and related products preparatory to baking. He observes the color of products being baked and controls oven temperature. He learns to apply glaze, icing, and other toppings to baked goods.

ENTRANCE REQUIREMENTS — DURATION 3 years

Age: Between 18 and 35; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Mathematics, cooking, hygiene, chemistry, English, art

WAGES EARNED

Apprentice starting wage per hour, $2.84-$2.95

Wage increase will average 5% each six-month period

Journeyman wage per hour, $4.54

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 52

Apprenticeship Training Available:

Bellingham	Kennewick
Longview	Seattle
Spokane	Tacoma
Vancouver	Yakima

BARBER

330.371

WORK PERFORMED

The barber apprentice learns to perform personal services for patrons of barber shops by cutting and trimming hair, shaving, styling hair, massaging, and other related tasks in dermatological needs. The apprentice is required to attend barber college or technical school for nine months (1,248 hours) in order to take the state examination for a permit to apply for the apprenticeship. When he passes the test he must practice under a journeyman barber to learn the practical application of barbering. He must supplement this phase by going to a technical school for a minimum of 144 hours per year. He learns dermis diseases and their care and treatment, how to massage the scalp and upper torso muscles, shampoo and hair care, how to clean and care for tools and equipment, how to maintain sanitary conditions toward the customer and himself, as well as the shop. He studies subjects in theory courses including study of cells, skin, muscles, nervous system, blood supply to face and scalp, shedding and regrowth of hair, state laws relating to barbering, and other related subjects.

ENTRANCE REQUIREMENTS

DURATION 2½ years

Age: Between 18 and 45; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript

HELPFUL SCHOOL SUBJECTS

Oral communications, hygiene, chemistry, general business

WAGES EARNED

Apprentices and Journeymen receive $85.00 per week or 70% of take, whichever is greater.

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 14

Apprenticeship Training Available:

Port Angeles Seattle

DINNER COOK

313.381

WORK PERFORMED

Prepares, seasons, and cooks soups, meats, vegetables, desserts, and other foodstuffs for consumption in hotels and restaurants. Reads menu to estimate food requirements and orders food from supplier or procures it from storage. Adjusts thermostat controls to regulate temperature of ovens, broilers, grills, roasters, and steam kettles. Measures and mixes ingredients according to recipe, using variety of kitchen utensils and equipment, such as blenders, mixers, grinders, slicers, and tenderizers, to prepare soups, salads, gravies, desserts, sauces, and casseroles.

ENTRANCE REQUIREMENTS — DURATION 2-2½ years

Age: Between 17 and 45; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

Math, general science, vocational prep courses, English, reading

WAGES EARNED

Apprentice starting wage per hour, $2.31

Wage increase will average 5% each six-month period

Journeyman wage per hour, $3.12-$3.35

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 153

Apprenticeship Training Available:

Aberdeen
Chehalis
Ephrata
Everett
Longview
Pasco
Raymond
Seattle
Walla Walla
Wenatchee
Yakima

LINEMAN (Utility and Telephone)

821.381

WORK PERFORMED

Erects wood poles and prefabricated light-duty metal towers, cable, and related equipment to construct transmission and distribution powerlines used to conduct electrical energy between generating stations, substations, and consumers. Directs and assists Groundmen in attaching crossarms, insulators, lightning arresters, switches, wire conductors, and auxiliary equipment to poles preparatory to erection as instructed by Line Foreman, and assists in erection of poles or towers and adjustment of guy wires. Climbs erected poles or towers and installs equipment.

ENTRANCE REQUIREMENTS — DURATION 3 years

Age: Between 18 and 33; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, algebra, geometry, English, written communications

WAGES EARNED

Apprentice starting wage per hour, $4.13-$5.04

Wage increase will average 3-7% each six-month period

Journeyman wage per hour, $5.62-$6.67

For more information see pages 71-72.

OPPORTUNITIES

Number of apprentices in state as of June 30, 1972: 115

Apprenticeship Training Available:

Tacoma
Everett
Seattle
Bellingham
Longview
Spokane
Yakima

MEATCUTTER

316.884

WORK PERFORMED

Cuts and trims meat to size for display or as ordered by customer, using handtools and power equipment, such as grinder, cubing machine, and powersaw. Cleans and cuts fish and poultry. May place meat in cardboard containers to be wrapped by other workers. May place meat on trays in display counter. May wrap and weigh meat for customers and collect money for sales. May inspect and grade meats and be designated Meat Inspector.

ENTRANCE REQUIREMENTS

DURATION 2 years

Age: Between 18 and 35; Birth certificate may be required.

Aptitude: Must perform satisfactorily on the General Aptitude Test Battery.

Education: High school graduate or equivalent; (GED), must furnish transcript.

HELPFUL SCHOOL SUBJECTS

General math, general business, shop courses

WAGES EARNED

Apprentice starting wage per hour, $3.51

Wage increase will average 5% each six-month period

Journeyman wage per hour, $5.00

For more information see pages 71-72.

more apprenticeships in the SERVICE AND MISCELLANEOUS TRADES...

In addition to the trades listed in the previous pages, several more trades have been approved for apprenticeship in the Service and Miscellaneous trades. They are somewhat less active than those listed individually. The qualifications, application procedures, and methods of training follow generally the same patterns as the other trades. Opportunities are somewhat less because the number of apprentices in these trades is smaller. Beginning wages for apprentices in these trades will vary quite widely, the average being $3.20 to $3.45 per hour.

beauty culturist
billiard repairman
camera repairman
communications
  cable splicer
  combination man
equipment man
dental technician
dispensing optician
display man
draftsman (mechanical and structural)
dry cleaner
electrical mechanic
electrical utility technician
garment cutter
green house grower
gunsmith
hydro mechanic
hydro station operator
instrument technician (industrial)
jewelry worker
  diamond and stone setter
  jeweler and repairman
  engraver and chaser
  jewelry polisher
wax model maker and designer
locksmith
meterman
office machine repair
optical technician
  benchman
  surface grinder
orthopedic technician
photographer (portrait)
relay tester
shoe maker (new shoes)
shoe rebuilder
  (same as shoe repair)
station electrician
stationary engineer
stone cutter
  (same as monument maker)
upholsterer
watchmaker (repair)
wireman (power company)
works repairman (industrial)

apprenticeships in PRINTING AND ALLIED TRADES...

The following is a list of current apprenticeships in the printing, graphics arts and allied trades. No attempt will be made here to outline the work performed by each trade. Some will be self evident, and information on those which are not may be obtained from the printing industry.

cameraman (black and white)
cameraman (color)
pressman (large press)
pressman (small press)
lithographer stripper
plate maker
feeder
printing typographer
tag printing pressman
printing, cutting and creasing pressman
printing pressman
offset pressman
flexographic pressman operator
machine adjuster operator
bag machine operator
stock cutter operator
rubber plate maker
typesetter
letterpress
offset cameraman (black and white)
offset press
offset negative stripper
offset platemaker
bookbinder
web pressman

For more information see pages 71-72.

more information...

If you desire more detailed information on any apprenticeship, it may be obtained from one of the following. You may contact the nearest area representative, or the area representative in the geographical area where the apprenticship program is located.

Northwest Area Representative for Apprenticeship, Department of Labor and Industries, Eastmont Plaza, Everett, Washington 98201. Telephone: 464-6158.

Southeast Area Representative for Apprenticeship, Department of Labor and Industries, 209 N. Dennis, Kennewick, Washington 99336. Telephone: 783-6171.

Seattle-King County Area Representative for Apprenticeship, Department of Labor and Industries, 300 W. Harrison, Seattle, Washington 98119. Telephone: 464-6850.

Northeast Area Representative for Apprenticeship, Department of Labor and Industries, E. 103 Indiana Ave., Spokane, Washington 99207. Telephone: 456-2923.

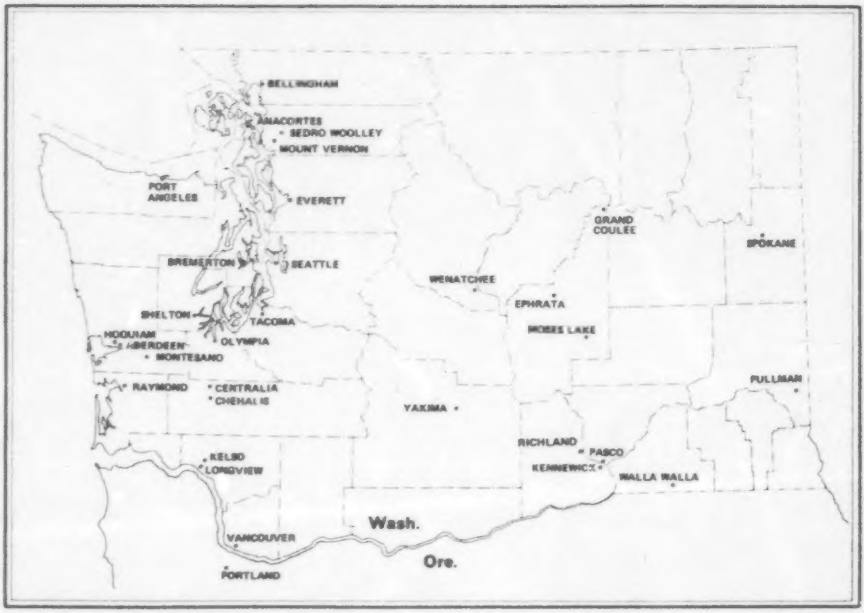
Southwest and Olympic Peninsula Area Representative for Apprenticeship, Department of Labor and Industries, 1305 Tacoma Ave. South, Tacoma, Washington 98402. Telephone: 593-2869.

Eastern Washington Minority Affairs Apprenticeship Coordinator, Department of Labor and Industries, Apprenticeship Division, 1101 South Third Avenue, Yakima, Washington 98907. Telephone: CH 8-0515.

Western Washington Minority Affairs Apprenticeship Coordinator, Department of Labor and Industries, Apprenticeship Division, 300 West Harrison, Seattle, Washington 98119. Telephone: 464-6850.

Further information may also be obtained from:

- Supervisor of Apprenticeship, Department of Labor and Industries, Olympia, Washington 98501. Telephone: 753-6294.
- State Supervisor, U.S. Department of Labor, Bureau of Apprenticeship and Training, 2006 Smith Tower Building, Seattle, Washington 98104. Telephone: 442-4756.
- Apprenticeship and Training Representative, U.S. Department of Labor, Bureau of Apprenticeship and Training, Room 216, Post Office Building, Spokane, Washington 99201. Telephone: 509—456-4585.
- Apprenticeship and Training Representative, U.S. Department of Labor, Bureau of Apprenticeship and Training, 412 Post Office Building, P.O. Box 1495, Tacoma, Washington 98401. Telephone: 383-2861, ext. 394.
- Apprenticeship Information Center, Department of Employment Security, 233 6th Avenue North, Seattle, Washington 98109. Telephone: 464-6040.
- Any local Joint Apprenticeship Committee.
- The local union of the trade involved.
- The local union or trade association of the trade involved.
- Any local employment security office.
- Any local director of vocational education in a common school, vocational-technical institute, or community college.



Locations of apprenticeship opportunities included in this publication

Special 4th Class
Rate-Books

COORDINATING COUNCIL
FOR OCCUPATIONAL EDUCATION
216 Old Capitol Building
Olympia, Washington 98504